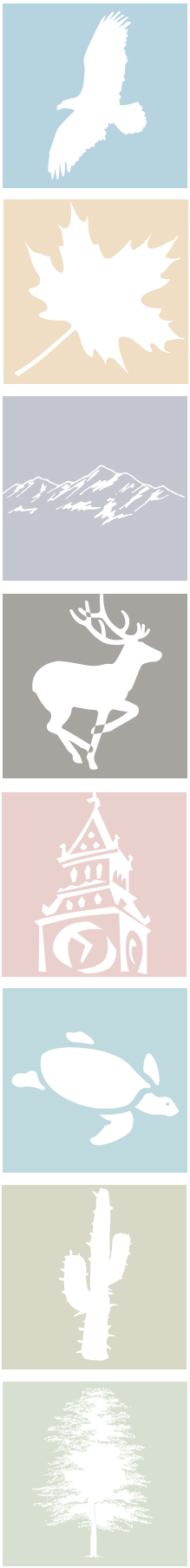

THE PARK-LEVEL EMS
THE TOOLKIT

For The National Park Service

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INTRODUCTION

What is this Toolkit?

This Toolkit is a collection of essential information, templates (contained in Appendix A), examples (in Appendix B), and other assistance materials and resources. It is designed to provide you with step-by-step guidance to enable you to design, implement, and document an Environmental Management System (EMS) for your park. This Toolkit will ultimately help you develop a customized, comprehensive EMS Manual to guide your efforts and integrate your EMS into on-going park activities.

Why use it?

After completing all of the required steps you will have created the framework for exemplary environmental management in your park – the easiest, most efficient and comprehensive way to design and create an EMS.

The Toolkit was developed to help parks implement an EMS based on the NPS national standard (the "Model EMS" or "park-level Model EMS"). The Model EMS will ensure that environmental management activities in parks:

- Comply with applicable laws and Executive Orders;
- Identify and reduce environmental impacts;
- Make operations more efficient and less wasteful; and
- Provide a framework to continually improve performance.

Who needs to use this Toolkit?

A team, often called an Environmental Management Team or EMT, is the best way to design and implement your EMS using this Toolkit. Think carefully about who should be on the team, and, if appropriate, who should lead the team and assume responsibility for the overall EMS. Team members should represent activities that are found at your park, including management.

Regardless of who leads the EMT, that person must have access to park management. Consider the deputy superintendent, facility manager or chief of natural resources or visitor protection. Make sure third parties such as contractors and concessioners are represented on the EMT.

Choose people who are committed and who will be able to show up to each meeting. You can also consider the use of alternates – in reality, not everyone will always be able to attend; however, you want to ensure continuity and progress.

Obtaining commitment from team members is important to the success of designing an effective EMS. The best designed and implemented EMS has a dedicated core team; the champions of your EMS in their respective departments, offices, positions.

How do you use it?

The Toolkit contains several sections. The most important section contains the eight park-level Model EMS Elements that need to be completed to form the basis of your EMS. Supporting sections provide information and links to supplemental resources to help you implement your EMS, such as an EMS Manual to document your EMS activity.

Each of the eight Elements contains instructions, suggestions and an example of what could be included when addressing that Element. They provide guidance only and each ultimately must be customized and adapted to reflect the conditions, culture, and unique nature of your park.

As laid out in the park-level Model EMS, the eight Elements are as follows:

A. Environmental Commitment Statement;
B. Park Activities and Environmental Impacts;
C. Goals, Objectives and Targets;
D. Roles, Responsibilities and Accountability;
E. Document Control, Recordkeeping and Reporting;
F. Communication;
G. Training; and,
H. Monitoring, Measurement, Corrective Action, and Management Review.

Getting Started

The Toolkit contains the following sections:

- **Introduction** – purpose, orientation and instructions;
- **Eight Elements** – description with tips and suggestions to help you create your own comprehensive EMS Elements;
- **EMS Resources** – tools to further help with implementing your EMS;
- **Glossary** – definition of key terms;
- **Appendix A** – a complete set of blank templates based on the examples given throughout the narrative that can be adapted for your use;
- **Appendix B** – Beacon Stone (BEST) EMS Manual describing what BEST did to plan and implement their EMS; and,
- **Appendix C** – BEST summary audit report.

The Eight Elements

The eight Elements form the core of your EMS. They are part of an integrated system where each contributes to EMS success. Each Element is presented in the following way:

- Guidance on the purpose and role of the Element;
- Factors to consider while addressing the Element; and,
- Suggested language and tips to help you develop your own park EMS Manual.

It is important that each Element be completed in turn; completed Elements should be combined to form the basis of your EMS Manual. As mentioned above, an example of how to put together an EMS Manual, including a suggested contents list and the BEST EMS Manual, can be found in Appendix B.

Resources

The development and implementation of the park-level EMS is supported by supplemental resources including a Help Desk Hot Line and EMS training modules.

Glossary

The glossary contains a collection of key EMS terms and definitions.

Appendix A

This section contains a collection of templates you can use to document information gathered as you

proceed through the Toolkit. These templates can be customized for your park and incorporated into your EMS Manual. Templates may be used to list documents, or personnel requiring training, for example.

Appendix B

This is an example of an EMS Manual for a fictional park, Beacon Stone National Monument (BEST), to which you can refer to when developing your documentation and EMS Manual. The BEST example only follows through and addresses two issues identified during the EMS implementation process; one, implementing better practices regarding the storage, handling, and use of hazardous materials throughout the park, and two, the need for an energy audit. This example illustrates steps that can be taken to move from establishing a target, to planning all pieces that will be needed to achieve the target, to implementation and successful outcome.

This example also demonstrates the relationship among each of the eight Elements, starting with the Environmental Commitment Statement and following all of the steps through to Monitoring, Measurement, Corrective Action, and Management Review. By following and implementing each of the eight Elements, your park can achieve the same kind of successes illustrated in the BEST example.

Appendix C

An example audit report for BEST is provided that demonstrates the usefulness of audit findings in establishing targets during the EMS process. The two examples used in Appendix B are derived from this audit report.

THE EIGHT ELEMENTS

The eight Elements of the Model EMS are described in this main section of the Toolkit. Explanations and examples of Element language are provided to help you customize the Elements for inclusion in your own EMS. (Sample templates which can be adapted for use in your EMS can be found in Appendix A). Tips and suggestions are provided in each Element to help you put together your EMS documentation to be ultimately combined in your EMS Manual (see appendix B).

The park-level Model EMS that the National Park Service (NPS) utilizes is composed of eight major Elements:

A. Environmental Commitment Statement;

B. Park Activities and Environmental Impacts;

C. Goals, Objectives, and Targets;

D. Roles, Responsibilities, and Accountability;

E. Document Control, Recordkeeping, and Reporting;

F. Communication;

G.. Training; and,

H. Monitoring, Measurement, Corrective Action, and Management Review.

Each of these eight Elements has specific requirements designed to provide consistency of approach and interpretation throughout the NPS. These minimum requirements must be included in each park's EMS.

A. ENVIRONMENTAL COMMITMENT STATEMENT

Your park's Environmental Commitment Statement (ECS) is a key component of your EMS because it will guide your overall efforts; it should stand as testimony to your commitment to advancing environmental management at your park.

The Environmental Commitment Statement

What: A signed commitment statement affirming the park's intent to strive for exemplary environmental management.
Why: The cornerstone of your EMS; the remaining seven Elements exist to fulfill the ECS.
Who: The Environmental Management Team (EMT) normally drafts the ECS; it should be signed by the park Superintendent.
When: The ECS should be one of the first Elements addressed by the EMT; it should be reviewed at least annually.
Where: The signed ECS should be posted at appropriate locations in your facility and included in your EMS Manual.

It is usually the responsibility of the EMT to draft the ECS and make subsequent changes to any new versions of the ECS. The Superintendent, or his or her designee, is responsible for reviewing and approving it to make it final. All staff and management at your park should have input into the development of the ECS as well as key stakeholders such as cooperating associations, concessioners, and those holding historical leases.

Management provides the initial commitment and on-going leadership to support your park's EMS. Park management has final responsibility for deciding on the allocation of resources and the setting and reviewing of operational goals. A simple but strong statement of commitment to an EMS system demonstrates management support and involvement.

The ECS should be updated to reflect new initiatives when they arise. The EMT should document any changes made to the ECS, and when and why they were made. Its applicability will be assessed as part of your annual internal assessment process (and also during the senior management review, which will be discussed in Element H, Monitoring, Measurement, Corrective Action, and Management Review). It therefore needs to be specific enough to be assessed – avoid vague and superficial statements. This will also ensure that the ECS reflects the current purpose and intent of environmental management at your park.

Your ECS should reflect your mission as a park within the National Park Service. It should show a dedication to the preservation of the environment in which your park operates and contain specifics where appropriate. Ultimately, your efforts in implementing the EMS will be measured against the intent contained in your commitment statement.

While preparing your ECS, remember it should, at a minimum, follow the guidelines outlined in Element A of the Model EMS:

A. Environmental Commitment Statement

- Each facility shall develop and document a commitment statement affirming the facility's intent to strive for exemplary environmental management.
- The commitment statement should be site-specific to the facility that is undertaking an EMS as well as incorporating appropriate broader regional and service-wide goals and objectives.
- The statement must commit to compliance with all applicable laws, including federal, state, and local laws, regulations, requirements, policies, and Executive Orders addressing the protection of the environment.
- The statement must commit to environmental leadership by incorporating pollution prevention, waste reduction, best management practices, and environmentally preferable purchasing in all park management activities.
- The statement must commit facilities to strive for continual environmental improvement in those areas identified within the park EMS.

You can find an example of a commitment statement in the BEST EMS Manual. It is just an example, included to show one type of ECS. Your ECS will likely be different because it should be specific to your own park's conditions and circumstances. Although it may be longer or shorter dependent on your park's conditions and circumstances, it is expected most parks will find a one page ECS to be sufficient.

BEST EMS Manual – *background*

Note: The BEST EMS Manual is presented in its entirety in Appendix B as an example of what an EMS Manual might look like. Background regarding the choices BEST made and the decisions that are recorded in the manual are presented in these text boxes throughout the eight Elements.

- The first chapter in any EMS Manual should reference the ECS. BEST followed the guidelines of Element A of the Model EMS in preparing their ECS. They included a copy of their ECS in the appendix to the chapter.
- The BEST ECS includes a commitment to the sustainable use of natural resources and the promotion of pollution prevention. They later used this to justify one of their choices for EMS targets for the year. A commitment to meeting or exceeding all applicable federal, state, and local environmental laws and regulations lead them to choosing their other target.

As mentioned on the introduction page, examples of language that could be included in an EMS Manual are placed throughout this document. Below is one such example of EMS language; language that describes how an ECS could be created. You can use this language as a basis to develop your own ECS, or you can utilize (and subsequently document) your own approach. EMS gives you this kind of flexibility.

Example language for (Park Name) EMS Manual, Element A: ECS
Our environmental commitment statement was prepared by the (Park Name) Environmental Management Team (EMT) and has the full commitment of the (Park Name) management, including Superintendent (Park Superintendent Name). (Section ___ of this EMS Manual contains a list of EMT team members and contact information.) The commitment statement has been communicated to all personnel at our park. The EMT will periodically review the commitment statement to ensure that it is current and fully expresses our environmental management priorities at (Park Name).

A copy of our park's environmental commitment statement is posted at key locations throughout the park and is provided on the following page(s) of this EMS Manual.

Tips/Suggestions: Consider what you write in your ECS. Avoid flowery and empty phrases. The ECS sets the tone and direction for all of your EMS-related efforts. It becomes your guiding document for setting worthwhile goals, objectives, and targets as you strive for environmental performance improvements.

B. PARK ACTIVITIES AND ENVIRONMENTAL IMPACTS

Assessing your park activities and services and the impact they have on the environment is a major consideration in EMS design. "Park Activities and Environmental Impacts," the second step in the park-level Model EMS, encourages parks to think beyond the normal realm of day-to-day operations and examine the overall influence a park can have on the surrounding environment.

Park Activities and Environmental Impacts

What: An assessment of interactions and impacts from your park activities and means to prioritize them.
Why: To choose what interactions and impacts are most significant to your park so you can focus on them in goals, objectives, and targets.
Who: The EMT should inventory activities and their impacts and choose the criteria to prioritize interactions and impacts with input from other appropriate park staff.
When: This effort should follow the development of and ECS and precede the establishment of goals, objectives, and targets.
Where: Results of the ranking of interactions and impacts should be included in the EMS Manual.

The assessment is a two step process. First, you must review your park activities and the activities of those operating in your park (e.g., contractors, concessioners, cooperating associations) and determine how they impact the surrounding environment. Second, you must prioritize the impacts and determine which ones are most important. The assessment of your park's impacts can be addressed many ways, ranging from a simple meeting with park personnel, to a detailed and complex series of identification, analysis, and mathematical modules. The beauty of an EMS is that both methods are correct and each has it benefits.

In the simple meeting approach, your park could gather a group of people together who are familiar with park activities and operations. The more representative the group is of the park activities, the more complete your assessment will be. The objective of the meeting and the group is to evaluate the activities of the park (e.g., vehicle maintenance) and list their impacts (e.g., waste oil). A park may choose to limit its assessment to particular areas of the park or specific operations. Once the impacts are listed, the group should establish criteria to determine which ones are most important or significant and are a high priority for improving the environment impacted by the park.

In the more detailed approach, a park can establish a team of people or bring stakeholders in to look at every operation and document all potential impacts to the environment. Once complete, the park could establish a list of criteria to measure against, then create and elaborate on a statistical, weighted, ranking or scoring system. The impacts that score high are determined to be the most significant. In the BEST example there is a moderately detailed system of tables and templates for inventorying impacts and developing a scoring system.

Another approach to the process is to use existing programs and information. Data from compliance audits and regulatory requirements often encompass a number of park activities: vehicle maintenance, building maintenance, trash disposal, pesticide application, wastewater disposal, storage tank

management, and road building, to name a few. By inventorying this information, a park can institutionalize regulatory requirements as an integral part of the EMS. Other environmental initiatives can also be incorporated into the assessment of the park impacts including greening, habitat/species protection, environmental education, and many other existing initiatives and programs.

Regardless of the approach you choose, you must at a minimum meet the requirements identified in Element B of the Model EMS:

B. Park Activities and Environmental Impacts

- The park must establish, implement, and document procedures that consider the potential environmental impacts of all activities within their operations.
- Selected activities and their environmental impacts will establish the basis for setting specific environmental objectives and targets. The EMS approach is designed to move facilities beyond minimal regulatory compliance and to encourage environmental leadership in all aspects of a park's environmental interactions. Therefore, compliance should be considered a critical component of an EMS, but it should not form the exclusive objective.

It may be helpful to address this EMS Element by considering these basic questions:

- How do your park's activities interact with and affect (impact) the environment?
- How do activities and services provided by third parties (e.g., concessioners, contractors) interact with and affect the environment?
- How do we identify environmental priorities?
- Do we plan for, or react to, environmental issues?
- Do we know all of our legal and other requirements?
- Are there ways we could be more efficient in our operations?

As you can see, there is more than one component to this analysis. For example, an assessment of interactions and impacts upon the environment, and also an evaluation of all of the existing compliance requirements facing your park are just two of these components. Only by considering all of these can you comprehensively assess the state of your environmental management.

Identifying Your Impacts

The methods used to determine the impacts and the list of impacts itself can vary. The important common factor with this assessment process is to compose a list of impacts and eventually prioritize them based on your criteria.

You can start the process by identifying activities and operations that occur in your park. The typical park may contain, or be associated with, all or some of the following activities and operations.

This list, though incomplete, gives you an understanding of the possible scope of activities associated with parks. Many of these activities have potential environmental interactions and impacts – one way of defining the extent of your assessment.

• Buildings of all types	• Open Land
• Water resources such as lakes, rivers, shorelines	• Wetlands and sensitive ecological habitats
• Landscaped areas	• Structures such as dams
• Roadways, trails and canals	• Maintenance operations
• Fuel storage	• Wastewater treatment
• On-site landfills	• Waste storage
• Areas of past materials storage, mining or land disturbance	• Concession facilities and services

In looking at park activities and operations, you may realize that assessing all the impacts associated with all of the identified activities and areas can be overwhelming in your first year of implementing an EMS. If you choose to assess them all, there is a real danger of "biting off more than you can chew" and having your fledgling EMS process stall, accomplishing little but frustration. However, you could limit the scope of the initial assessment based on many factors such as area or building locations, operation type, time, resources, and management initiatives. It is usually wiser to start modestly and build on success. Ultimately, as your EMS system matures and becomes more sophisticated, you can add to its complexity. EMS is an ever evolving system and can be improved and readjusted. You can re-address park activities that were judged to be in a lower priority category (or in some other way limited) during the EMS initiation in a later phase. This is part of the continual improvement cycle characteristic of any management system.

Tips/Suggestions: You know your facility best – and this knowledge should be applied in the selection of what to consider in the start-up phase of your EMS. Remember, your EMS incorporates continual improvement – you can assess other interactions and impacts in subsequent assessment phases.

After selecting activities to focus on, you must then identify interactions with the environment and determine what impact those interactions will have; either positive or negative.

Of course a myriad of activities do have interactions with the environment and therefore at least have a potential for an impact. A brief sampling of interactions and impacts for a park may include:

Visitors leaving trash that requires collection and disposal	• Using landfill space • Depletion of natural resources (aluminum and petroleum from plastic making process)
Using petroleum-based fuels in park vehicles	• Depletion of natural resources and raw materials • VOC emissions contribute to degradation of air quality

Your EMT could use Template B-1 (in Appendix A) to list and assess as many of your park activities as possible. You may find it helpful to include park staff not on the EMT, such as concessioners, contractors or other stakeholders in this non-regulatory Park Interaction Assessment.

Tips/Suggestions: You may also find it helpful (and practical) to group similar activities and consider them as one impact category. For instance, if painting occurs at your facility carpentry shop and also over in the historic restoration unit on the other side of the park, it may not make sense to attempt to assess these activities separately if the impacts are virtually the same. One category for "Painting" will suffice.

Also, the EMT should only consider those interactions over which the park has control or could be expected to exert an influence. Reducing emissions from a power plant located two states to the west that affects the visual environment within your park may be beyond your sphere of direct influence. But it could make you acutely aware of energy conservation and management needs in general and thus your park's electricity consumption.

In the spirit of continual improvement, you should periodically reevaluate the park activity list and associated interactions and impacts. Changes can occur in every park and new impacts may arise while others become less significant.

BEST EMS Manual

- The BEST EMS Manual includes a table (park interaction assessment) describing how activities were characterized and their potential for creating environmental impacts assessed. Another table (significant impact ranking) details how they made the decision to choose the two issues on which to concentrate (energy audit and hazardous waste management). The ranking system used by BEST is described in section 5.0 of Chapter B of their Manual.
- The BEST EMS Manual also includes a list of all their environmental regulatory requirements, permits, copies of consent agreements and enforcement orders; in short, an inventory of known environmental requirements affecting their facilities and operations. The requirements behind the two issues chosen by BEST can be found in this list.

Prioritizing Park Interactions and Impacts

To help prioritize park interactions and impacts, you should identify criteria to be used in determining which impacts are considered most significant. Criteria could include duration of impact (e.g., long term, short term), ability to control impact, relationship to existing park management objectives, economic factors, and risk to employees and visitors.

Once criteria are identified, you will need to develop a scoring system or some other method in which you can rank impacts. Eventually, this selection process will result in determining the most important (significant) impacts to be addressed as goals, objectives, and targets.

Again, the criteria can be extensive and the ranking can be addressed many ways, from simple numbering to mathematical models. Here is one way to apply specific criteria to your park's impacts:

Assign a ranking score to each one based on the following four criteria:

Severity – What is the severity of the impact?
1- Minimal severity or aesthetic impact only
2- Moderate impact to water, air or land quality
3- Substantial impact to water, air or land quality or detrimental to human health, or flora and fauna

Frequency – What is the overall frequency or probability of the impacts occurring?
1- Low frequency/less than once a year
2- Moderate frequency/more than once a year and less than once a month
3- High frequency/monthly or more frequent

Financial – What is the overall economic effect of correcting the impact?
1- Correcting the impact is likely to be prohibitively expensive
2- Associated costs are negligible or modest
3- Correcting the impact is likely to save the park money with a payback

Stakeholders – How would stakeholders react to, or be affected by, the impact?
1- Neutral or disinterested
2- Mildly concerned
3- Greatly concerned

Once ranking scores have been assigned, add up the rows (see the following example). Impacts with the highest scores can be considered significant impacts worthy of addressing through your EMS. Whatever method you determine to be appropriate is up to you; just ensure the approach is documented in your EMS Module. There is sample language at the end of this Element section.

Enter your scores here

Criteria Impact	Severity	Frequency	Financial	Stakeholders	Total
Solid Waste Generation	3	3	2	1	9
Air emission from solvent Tanks	3	1	3	3	10
Energy Consumption	2	3	2	1	
Water Consumption	3	3	2		

Total your score here

BEST EMS Manual

- BEST used a similar process to determine their significant impacts. The procedure that governs how this was carried out is documented in Chapter B, Section 1.0 (procedures) and Section 5.0 (records).

For your park, use Park Interaction Template B-2 (in Appendix A) to assess park impacts and rank them appropriately. Again, if you chose to use another system, ensure you document your system in your EMS Manual.

Regulatory Obligations and Relationship to Priority

Parks, like other federal facilities, must comply with applicable laws pertaining to environmental matters. Other environmental requirements may be included in Director's Orders, Departmental Policies, or requirements set by your park's regional management.

Compliance with applicable environmental laws and regulations is an NPS priority. As all parks have conducted compliance audits, there should be familiarity with regulatory requirements. By inventorying these requirements, you can institutionalize regulatory requirements as an integral part of this assessment. This is an interaction activity that likely encompasses or cross-cuts a number of park activities in most parks.

During the impact identification process it is important to identify and recognize these legal requirements. It will be important to ensure you have a complete list because these legal requirements, along with significant impacts, will be used to develop goals, targets, and objectives in the next section. In considering legal and other requirements as part of the interactions and impacts analysis, you can explore the possibility of leveraging some of the resources you already expend in regulatory compliance activities and, in some selected areas, demonstrate strong environmental leadership by going beyond basic compliance. An EMS emphasizes such an integrated approach to environmental management – it is one of the underpinnings in the move to efficient management. Combining compliance with other initiatives can render benefits such as cost savings and increased environmental performance.

Where to start? You may want to consider using results from your previous environmental audit or concession audits and the NPS Environmental Audit Program EnviroCheck Sheets as a resource for determining regulatory requirements (as BEST did). You can identify requirements by program area or regulation or another method you find more convenient. There is no right or wrong way, just try to ensure all requirements are identified.

Example language is included for you to use in documenting your choices on determining activities, interactions, impacts, and significant criteria.

Example language for _____ EMS Manual, Element B:

We have included regulatory and other requirements in our EMS to ensure a comprehensive approach to environmental management. We recognize that we have certain legal obligations, and that we have to adhere to specific policies and guidance as a park within the NPS. We choose to identify those legal and other requirements alongside our interactions and impacts in order to efficiently

manage as much of our environmental impacts as possible.
Interactions and impacts describe how _____ interacts with and potentially affects the environment. An understanding of these interactions and impacts is important in determining the focus of the EMS, and where positive change can be expected. Such considerations are combined with a recognition and commitment to compliance with all applicable laws.

The park EMT has completed an interactions and impacts analysis. (The documented procedures that govern this process, and the results of the analysis, can be found in the attachments.) In assessing these interactions, a scoring system was used to determine the most important impacts to our park and therefore those subject to our objectives and targets.

Interactions, impacts, and legal and other requirements will be reviewed on an annual basis, in conjunction with our senior management review, to determine if there are any changes that should be reflected in our EMS.

Tips/Suggestions: As you go through the planning process, be sure to listen to others (contractors, those holding historical leases, cooperating associations, concessioners, volunteers and partners). Invite them to meetings and ask them for their opinion. Opinions from others may shed some light on issues that you have dismissed as unimportant. Remember, all ideas can be constructive, and can lead to more efficient, comprehensive environmental management; which is, after all, what we are trying to achieve with an EMS.

Review the concept of full compliance with all applicable laws (see definition in Glossary). This concept will help you prioritize your *environmental interactions* and *impacts.*

C. GOALS, OBJECTIVES, AND TARGETS

The goals, objectives, and targets Element allows you to qualify and quantify the results you wish to see with regard to reducing the significant environmental impacts identified under Element B. Your goals, objectives, and targets should reflect the commitment contained in your ECS.

Specifically, a goal is a general statement; an objective a formal environmental goal; and, a target a specific performance requirement (quantified and given a timeline where practical). As an example: A reduction in the generation of solid waste (a goal) from the park headquarters building (objective) by 25% within 12 months of the start of the EMS (target).

Tips/Suggestions: Moving from a goal to an objective to a target is the same as moving from a general idea to a specific desired outcome.

How you accomplish the targets identified through this process is described in the second section of this Element; the Environmental Management Plan (EMP). An EMP must be designed for each one of your targets; it describes the specific actions that will be required to accomplish your target. An EMP is therefore target-specific; it states how the target is to be achieved, who is going to work towards achieving it, when and with what resources. (Of course, when the target is achieved, the EMP will have served its purpose and is no longer needed; it can "go away." Referencing successful EMPs in your EMS Manual for future reference is always a good idea; drawing upon what worked in the past will help future, perhaps, similar efforts.) An EMP is tied to and formalizes the intent of your park to achieve all that is stated in your ECS (see Element A). In that sense, an EMP is a central (albeit temporary) element that drives much of your EMS. In a nutshell, it outlines the role of each person involved in achieving a target, what is expected of them, and what results are required to demonstrate accomplishment within the park.

Goals, Objectives, and Targets

What: Your list or table of goals, objectives, and targets and their associated action plan(s) – the EMP.

Why: Goals, objectives and targets provide the park with a focus to environmental improvement. An EMP details how the improvement(s) (i.e., the targets) are to be achieved.

Who: Normally the EMT establishes and maintains the goals, objectives, targets and EMPs, while a number of other non-EMT staff may be carrying out the actions required under a specific EMP. Park management periodically reviews these components.

When: Establish goals, objectives, targets, and their associated EMP(s) after you have completed the interactions and impacts analysis. Review and consider updating your designated goals, objectives, and targets at least annually or as they are accomplished.

Where: The EMT should maintain documents and records associated with documents in Element C.

While developing you goals, objectives and targets remember they should, at a minimum, follow the guidelines outlined in Element C of the Model EMS:

C. Goals, Objectives, and Targets

- Procedures to identify specific goals, objectives, and targets relating to impacts will be developed, documented, and then implemented. Goals, objectives, and targets are chosen based on the above developed procedures.
- Goals, objectives, and targets should be quantified, a timeframe for their achievement should be proposed, and action plans should be established.
- Management and external auditors will assess the timely achievement of goals, objectives, and targets in a review of the EMS.
- Continual improvement includes a requirement for periodic reviews of the relevance and achievement of documented goals, objectives, and targets. At a minimum these reviews shall be held annually.
- New goals, objectives, and targets may be added at any time. New goals, objectives, and targets must always be set when previous goals, objectives, and targets have been accomplished or are otherwise determined to no longer be relevant.

Setting Goals, Objectives, and Targets

Goals, objectives, and targets should reflect your ECS and be tied to your interactions and impacts, and legal and other requirements identified in Element B. Setting goals, objectives, and targets is a cornerstone of an EMS; you should therefore plan to spend an appropriate amount of time working through this section. The selection of your park's goals, objectives, and targets need to promote continual improvement, pollution prevention, and environmental compliance, and be based on the reality of your park (e.g., the technical, economic, and resource constraints). For example, a goal that is too costly to achieve will likely never be accomplished. Goals, objectives and targets are best developed by those people that are directly involved in that activity or process. These staff should be brought into the EMT on an as-needed basis to provide appropriate input. Your park may also identify goals, objectives, and targets that should apply to third parties (e.g., contractors, concessioners) and identify how these will be required (i.e., through contract language requirements).

Example language for (Park Name) EMS Manual, Element C: Goals, Objectives, and Targets

Annually, our park EMT reviews park facilities and operations including, but not limited to: our current interactions and impacts; environmental compliance requirements stemming from all applicable laws; NPS HQ and Regional goals; and objectives and direction, including those established by DOI or OFEE. Activities are also reviewed in light of the park mission, ECS, recent performance results, and input from our park partners. Goals, objectives, and targets are identified and reviewed during this process to maintain and improve park operations, minimize park impact to the ecosystem, and demonstrate environmental leadership. These goals, objectives, and targets are practical, realistic, and provide clear direction for park environmental management activities.

See the attached table for a list of our current goals, objectives, and targets. The list represents the outcome of our interactions and impacts analysis. The list contains brief information on the kind and type of data we plan on collecting to measure progress. Finally, it contains a summary of activity needed to achieve them. For a more comprehensive discussion of our monitoring and measurement activities, see Element H.

BEST EMS Manual - *Goals, Objectives and Targets*

- BEST decided upon a common approach in order to determine what is applicable for a Goal, Objective and Target; they referred to the policy or regulation that related to an audit finding (see Appendix C for the BEST audit report). In the case of energy conservation, that policy was EO 13123; the hazardous material finding was based on 29 CFR 1910.176 (c). BEST also included further background material in the EMS Manual to document their complete decision process.

Environmental Management Plan

Your EMP details how you translate your ECS and your goals, objectives, and targets into action. It is the "action plan" regarding how you are going to achieve your targets. It is more detailed than the Summary of Activity column shown in the BEST example Goals, Objectives and Target Table. The EMP should define who is responsible, how and where are they going to do it, by when is it to be done, and with what resources will they be provided (e.g., time, money, equipment).

Progress towards achieving your goals, objectives, and targets will demonstrate successful implementation of a large part of your EMS. Remember to document why you chose what you did (i.e., why you picked the specific goals, objectives, and targets) If you choose to document your goals, objectives, and targets using the Template document provided in Appendix A, remember to include specific dates by which you aim to achieve your goals, objectives, and targets where and when appropriate. These can be referenced later to demonstrate program success.

Develop and implement a procedure to review your goals, objectives, and targets periodically. (For more suggestions see Element H, Monitoring, Measurement, Corrective Action, and Management Review). EMS emphasizes self-analysis as a key component of management oversight. Also, your EMS should encompass a commitment to continual improvement. You should always strive to improve the environmental management of your park and the systems you have created to assist in that management. Setting increasingly stringent or challenging goals, objectives, and targets during future EMS review cycles will demonstrate your commitment to this continual improvement principle.

Tips/Suggestions: Challenge yourselves, and your park, to select meaningful goals, objectives, and targets, especially ones that promote the NPS concepts of greening, environmental leadership and going beyond basic regulatory compliance.

Example language for (Park Name) EMS Manual, Element C: Environmental Management Plan

Our Environmental Management Plan describes how we put into action the intent of our EMS. It details who is responsible for each of the goals, objectives, and targets identified, and resources available for their achievement. It also outlines dates by which we aim to accomplish these tasks.

BEST EMS Manual - *EMP*

- BEST established and documented an EMP for both EMS targets (the energy audit and the hazardous material management issue) in their EMS Manual. Both EMPs are specific "action plans" designed to accomplish one EMS target.
- Their EMPs contain details; they define who is responsible, how and where are they going to do it, by when is it to be done, and with what resources will they be provided (e.g., time, money, equipment).
- An EMP can be developed and presented in a number of ways; BEST choose a summary table approach with accompanying explanatory notes. The notes help someone outside the park understand what the park is trying to achieve.
- BEST communicated clearly with each individual involved in accomplishing the target at each stage of the planning phase; each role is clearly defined. Each milestone and requirement regarding the achievement of the target has a greater chance of being implemented following this approach.

D. ROLES, RESPONSIBILITIES, AND ACCOUNTABILITY

The integration of environmental management in the NPS relies upon the assignment of responsibilities within the park organization. Specific staff is assigned responsibility for administering various programs having environmental impacts. Whereas sound environmental practices are considered every park employee's responsibility, these responsibilities often extend beyond the traditional and well understood roles of natural resources managers; they range from activities that support the direct operation of the park (such as maintenance and procurement) to more regional activities such as scientific research.

The identification of program responsibilities serves as a framework and resource in which all parties involved or interested in the EMS can clearly identify their respective roles, responsibilities, and accountability. Institutionalizing roles, responsibilities, and accountability will help in the development, implementation, and improvement of your EMS.

Roles, Responsibilities, and Accountability

What: A list or table that identifies the roles and responsibilities of individuals within the EMS.

Why: To ensure that important environmental activities are accounted for and managed.

Who: The EMT reviews position descriptions and job responsibilities for all personnel; critical environmental responsibilities are identified and incorporated into the EMS.

When: Park staff is informed of their designated environmental responsibilities and associated environmental practices at the time of assignment. Staff are evaluated annually as part of their formal annual performance evaluation.

Where: Roles, responsibilities, and accountability should be communicated to all staff and documented in the EMS Manual.

Roles, responsibilities, and accountability should be defined and documented in this section; perhaps in an "EMS Organization Chart." The contents of this matrix should be clearly understood by all, and made available for all staff. As a first step, the EMT members should be listed with contact information. A park "EMS Roles and Responsibility" Matrix should then be completed to include all of the participants in the program. This should detail park-specific positions and their expected EMS responsibilities. The combination of these two pieces of information will ensure that everyone is informed as to what is expected of them. Others – not directly involved with the EMS program – will be aware of what is happening, and if necessary, will know who to contact regarding EMS activity.

A key component in all endeavors is the provision of funds (a management role and responsibility). Funding can take different forms; a commitment from a supervisor to provide a specific number of hours per week to an employee to work on an EMS initiative is a form of funding. (Such a commitment should be documented; a great way to demonstrate managerial support.) Other EMS projects, stemming from the interactions and impacts analysis, and qualified in the goals, objectives, and targets Elements, may require capital outlay. The purchase of equipment, or the retro-fitting of a

building, the provision of secondary containment, or the use of consultants to deliver training may fall into this category. This provision of resources will need to be addressed, documented (perhaps included in PMIS), and fully implemented.

As you proceed, it is important to remember that each Element should conform to the principles identified in Element D of the park-level Model EMS:

D. Roles, Responsibilities and Accountability

- Each park shall assign roles and responsibilities that allow for the goals, objectives, and targets to be achieved.
- For the EMS to function effectively, personnel, budget, and organizational issues, among others, should be considered in assigning roles and responsibilities.
- Position descriptions will include EMS-related responsibilities and performance standards. Personnel will be evaluated on their performance in carrying out EMS-related responsibilities during their annual performance review.

Your first step should be to fill out an EMT table – positions, names, and contact information; then proceed to the next table. (See Appendix A for copies of both table templates).

Tips/Suggestions: You should place an emphasis on accountability in staffing the roles required by an EMS. Ensure that all roles and responsibilities, however, can be carried out by the assigned staff and management through the application and execution of appropriate training.

Key job descriptions (i.e., Superintendent, Deputy Superintendent, Environmental Coordinator, Safety Office, Chief and/or Concessions Specialist, and Facility Manager) should be updated if necessary to include EMS roles and responsibilities. Job performance should include an assessment of how the roles and responsibilities were carried out during the previous year. Employees should be made aware that their performance evaluation will include an assessment of their participation in the EMS, where applicable.

Tips/Suggestions: Emphasize the positive attributes of EMS; be sure to consider incentives and awards as part of the annual assessment of an individual's performance.

Below is a sample of standard language that could be used to describe the Roles, Responsibilities, and Accountability Element of your EMS.

Example language for (Park Name) EMS Manual, Element D: Roles, Responsibilities, and Accountability

This section lists our key EMS personnel – our Environmental Management Team (EMT), and also provides further information on all of the personnel who have responsibilities within the EMS program.

We have an established personnel system based on Service requirements that includes a personnel responsibility and accountability system.

Sound environmental practices, like sound safety practices, are considered everyone's job at our park. This responsibility is incorporated into all position descriptions as a general performance element on environmental management. In addition, to ensure that important environmental activities are accounted for and executed, the EMT has reviewed the position descriptions and job responsibilities for all personnel. Critical environmental responsibilities have been identified and incorporated into position descriptions and annual performance plans for key employees. These are summarized, along with information on the EMT, in the attachments.

Employees are informed of their designated environmental responsibilities when they start their job. They are made aware of these responsibilities and associated environmental practices at the time of assignment though an initial park orientation training and specific job orientation provided by their supervisor. Duties are assessed by supervisors in the course of day-to-day activities. Supervisors are responsible for correcting staff on an ad hoc basis when improper procedures are observed. In addition, supervisors are responsible for conducting formal annual performance evaluations for staff under their administration. This evaluation considers performance related to the general performance element and job specific performance requirements in personnel position descriptions, as well as personnel success in meeting EMS goals. Performance is measured using Service criteria and procedures. Positive performance is expected. Exceptional performance may be encouraged through environmental leadership award systems. Failure to complete designated environmental responsibilities in a satisfactory manner may be grounds for disciplinary action and termination dependant upon the severity and persistence of the behavior in accordance with Service policies and procedures.

The park has also identified key roles and responsibilities for appropriate third parties (e.g., concessioners, contractors) operating in the park. These roles and responsibilities are incorporated into the appropriate contract documents.

BEST EMS Manual

- Chapter D of the BEST EMS Manual contains both details of individuals who are continually involved in the EMS (primarily the EMT) and those whose involvement is limited to the achievement of the two targets (EMS roles and responsibilities). The latter table in the Appendix to Chapter D documents the involvement of outside parties who can help achieve the targets (such as regional personnel and those outside of the NPS, including concessioners).

E. DOCUMENT CONTROL, RECORDKEEPING, AND REPORTING

Documentation: The activity very few people actually enjoy, but cannot be avoided. Having a system in place to track documentation and allow for its easy retrieval is often an involved process; but, it will pay dividends in the long run. In the end you will spend more time doing your job and less time tracking down "lost" documents – one of the efficiencies of using an EMS.

Document Control, Recordkeeping, and Reporting

What: A system to identify and track the location of environmental documentation, such as EMS and other legal documents.
Why: To ensure that important documents and records are correctly referenced, managed, and submitted.
Who: The EMT creates and oversees the document and record management control system.
When: At the outset of the EMS.
Where: The list of documents and records should be included in the EMS Manual.

A variety of documentation and reports are involved in managing environmental matters at your park. Documents describe your EMS, including the decisions that have been made and procedures followed. Records required by applicable laws often need to be submitted to regulatory agencies.

A document and record control system provides a way for you to track and monitor all of your park's necessary environmental paperwork. This will ensure that EMS documents and other environmental records are up-to-date and maintained in the proper location(s). The Templates in Appendix A (E1 and E2) provides one way you could reference the documents and records you might want/need to maintain. Enter the locations where they are to be found and who is responsible for keeping them current.

As you proceed, it is important to remember that your system should conform to the principles identified in Element E of the park-level Model EMS:

E. Document Control, Recordkeeping and Reporting

- Documents and records are used to demonstrate a facility's compliance with laws, requirements, policies, and standard operating procedures in many aspects of management. Documents and records will serve the same purpose within an EMS.
- A park will develop procedures that, when executed, will demonstrate that the organization has effectively carried out all the Elements of its EMS.

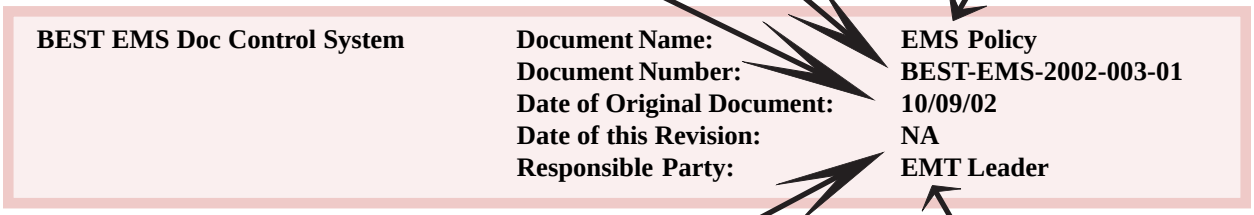
Tips/Suggestions: The actual EMS documents and other environmental records do not need to be kept in the EMS Manual, just a reference to where they are located.

By now you may be familiar with the text box that appears on the top of BEST's EMS documents – each table, set of procedures, and matrix features this box. The text box is used to track documents. See the graphic below for a full explanation of each component of the BEST example document and record control system.

Document Number – a unique number containing the following components: BEST (park abbreviation); EMS (abbreviation for Environmental Management System); 2002 (the year the document was created); 003 (a unique number for the document in question); 01 (the version number of the document – this is the first, hence '01').

Date of Original Document – the date that the first document was created.

Document Name – the name given by you to identify the document.



Date of this Revision – the date of the current document. In the example shown, there has not yet been a revision issued, hence the Not Applicable or "NA."

Responsible Party – the individual (as a position) who is responsible for keeping the document contents current.

Tips/Suggestions: The document number is the key element in the above example of the document and record control system. If you are considering using a database to keep track of your documents at your park, this number should be the primary piece of data.

Documents generated by your EMS that should be either stored or referenced under this section include, but are not necessarily limited to:

- EMT information;
- Planning activities, implementation and operation procedures;
- Budgetary decisions;
- Position descriptions;
- Internal assessments; and,
- Management reviews.

Typical environmental records at an NPS park include, but are not necessarily limited to:

- Park General Management Plan;
- NEPA documents;
- Cultural resource management documents;
- Applicable environmental regulations;
- Service, region and park policies;
- Program plans (e.g., Hazard Communication Plan);

- Standard Operating Procedures (SOPs);
- Inventories (e.g., hazardous substances, hazardous wastes, solid wastes);
- Notice of Violation (NOV);
- Environmental reports to regulatory agencies (e.g., biannual hazardous waste reports, discharge monitoring reports);
- Environmental reports to the Region or Service (e.g., waste reduction, environmental budget, pesticide use proposals);
- Environmental permits (e.g., NPDES, air);
- Park and concession environmental audit and corrective action reports;
- Internal operational evaluations;
- Environmental sampling data;
- Operational logs, inspection and monitoring reports;
- Miscellaneous environmental records;
- Environmental budget data; and.
- Environmental training documents and reports.

Many of the above documents and reports are required under various federal, state, and local laws and regulations that apply to activities at your park.

Below is an example of standard Element language that you could adapt to describe the process you will put in place to manage your documents and records in your EMS Manual.

Example language for (Park Name) EMS Manual, Element E: Document, Recordkeeping, and Reporting.

EMS documents for (Park Name) are maintained through a formal file management system. This central EMS documents file is maintained at the park headquarters. This file provides a compendium of all key environmental documents and records generated for (Park Name) EMS. (Name of responsible party, enter position of responsible party) is responsible for maintaining the file.

Environmental records for (Park Name) are maintained through a formal environmental records management system. This system conforms to Service and regional standards. The system is designed to ensure compliance with all reporting requirements mandated by law, regulation, and policy; maintain accountability for key operations; assure timely and efficient access to environmental data; and maintain security where necessary. The system consists of both hard copy and electronic files (where allowed by law). Included in this system is a central environmental reporting file maintained at park headquarters. This file provides a compendium of all key environmental reports for the park. (Name of responsible party, enter position of responsible party) is responsible for maintaining the reporting file. Certain files such as logs and inspection and monitoring reports are generated, and/or required to be maintained, in operational areas. These reports are maintained at the point of use and are under the administrative control of the operational area supervisor. Some of these operational files may be designated as “important.” These files are duplicated and copies or originals are maintained in the central file. Our Environmental Document, Records, and Reporting Control Plan lists all of the key documents, records, and reports used, generated, and/or submitted by the park. This plan is reviewed and updated at least annually.

Tips/ Suggestions: Certain information is available from, and/or maintained on, off-site electronic information systems such as the Internet, and Service and Region Intranet. Key information contained in these systems includes the following: federal regulations; Service and regional policy; Service budget management information; environmental audit data and the audit protocol; and federal, state, and local, Service and regional environmental, health, and safety guidance documents. You can reference such resources in your document or records list – make sure you add in a URL if the document is on the Internet.

BEST EMS Manual

- BEST makes reference to documents – it doesn't feel the need to duplicate documents and records just to include them in the EMS Manual.
- The Manual does clearly spell out the procedure to follow in order to control documents, and provides a graphic explaining the contents of the document/record management label.
- Documents include procedures that govern the EMS; records include all environmental permits, plans that are required to demonstrate compliance.

F. COMMUNICATION

Communication is a core element of the successful implementation of an EMS. Unfortunately it is often the most overlooked. Virtually any system can be advanced (or become stalled) based on the quality of communication.

Communication

What: A documented strategy to communicate environmental management to internal and external parties.
Why: To share information; to facilitate the successful implementation of the EMS.
Who: The Environmental Management Team should draft the communication strategy for review by appropriate personnel.
When: The communication strategy should be considered initially during the formation of the EMT. A formal strategy should be drafted based on the outcomes determined from the core EMS Elements. The communication strategy should be revised periodically.
Where: The communication strategy should be a working document for the EMT, documented in the EMS Manual and posted where appropriate.

The communication strategy for the park-level Model EMS should be developed to introduce, educate, facilitate, and promote environmental management through the EMS to staff within the park (including those non-NPS staff operating within the park such as contractors and concession staff) and interested external parties (e.g., friends group, gateway communities).

Your ECS should consider a commitment to open communication; both internally to staff and management, and to the public and other stakeholders of the park. Your communication strategy should meet the minimum requirements identified in the Element F of the Model EMS:

F. Communication

- Internal Communication – Parks will strive to make employees and supervisors aware of the park's EMS and their role in the commitment to environmental performance and leadership. The communications will emphasize, at a minimum, those facility activities and their environmental impacts that are linked to current goals, objectives and targets.
- External Communication – Parks are encouraged to work with communities, external stakeholders, and the public to develop and share outstanding environmental accomplishments through appropriate media such as wayside exhibits, brochures, and educational materials.

Tips/Suggestions: Communication doesn't have to be constant; it may only be required on a periodic basis, or after a milestone has been achieved. It should support your activities, not become a burden and overwhelm other efforts within your EMS.

Below is some example language regarding communication as part of an EMS.

Example language for (Park Name) EMS Manual, Element F: Communication

Communication regarding environmental matters for (Park Name) has two components:

- Internal communication to ensure that all staff and appropriate partners operating in the park are kept up to date on environmental matters, and are provided with the necessary information to perform their duties.
- External communication to ensure the appropriate sharing of information with all parties interested in the operation of (Park Name).

Internal communication methods are designed to provide park personnel with key information and to provide a venue for personnel to provide input on environmental performance. Methods include: training classes, staff meetings (including a monthly safety and environmental meeting), fact sheets, formal and informal talks, internal emails and memos, bulletin board postings, and others.

External communication is maintained through formal National Park Service public announcements, the general Service website (**www.nps.gov**) and the park website (Your Park Website), press releases, community meetings, public interfaces, external memorandums, and other casual information sharing. All public announcements should conform to Service protocol and regional standards.

External parties vary considerably; they can be park support groups (e.g., Friends of the Park) or interested visitors requesting information on park greening practices and energy and water conservation.

Tips/Suggestions: Seasonal employees should be included as part of your communication strategy. Seasonal employees often have frequent contact with visitors to your park - a great opportunity to spread the word regarding environmental management achievements.

BEST EMS Manual

- Communication should cover both general environmental management issues and those specific to the achievement of EMS targets.
- The matrix in the appendix to Chapter F lists the audience receiving the communication, what type or mechanism will be used use to deliver the message, its content, and who is responsible for carrying out its delivery.
- The communication includes external parties (e.g., the local utility company to help with the energy audit), and internal parties (including concessioners) to work collaborate with respect to the hazardous materials management target.

G. TRAINING

Successful implementation of any system is dependent upon the knowledge and skills (and attitudes) of the people within that system. This Element is concerned with establishing and managing the facilitation of learning through training initiatives.

Training

What: A means to manage the training needs of park staff in light of their roles and responsibilities, such as EMS and other legal requirements.
Why: To ensure that staff have the requisite knowledge and skills to implement the EMS and sound environmental practices.
Who: The EMT reviews the position descriptions and job responsibilities for all personnel and develops a training matrix with input from park supervisors and others.
When: Staff should be trained upon assignment. Additional training, including refresher training, should be given based on regulatory requirements and need.
Where: The Training Matrix should be communicated to all staff and documented in the EMS Manual.

Training and experience provides park staff with the knowledge and skills necessary to perform their roles within the EMS and other environmental management requirements.

The Training Element can be accomplished in many ways; from one-on-one instruction (such as apprenticeships), to tail-gate meetings and Service-wide workshops. The narrative below provides details of the type of training that park staff and management might be required to take, how the information is delivered, by whom, who receives the information, and how often. Your park could use the included Template as a starting point to record your personnel's relevant training requirements. Ways to leverage limited training budgets should be explored such as partnering with third parties within the park, such as contractors and concessioners.

Your training program must, at a minimum, meet the requirement identified in Element G of the Model EMS identified below:

G. Training

- Documented procedures will be developed and executed to ensure that all individuals that have a role or responsibility within the EMS have the understanding and capability to carry out that role or responsibility. Training needs must be identified and tailored to the needs of the position of the individual within an EMS and will be documented.

Example language for (Park Name) EMS Manual, Element G: Training

The personnel at (Park Name) are provided with the requisite knowledge to safely, competently, and legally fulfill their EMS and other environmental responsibilities. Training is one way in which the

right information is given to the right individual. Park management regularly assesses all positions within our park and the associated training requirements for these positions. Different methods of training are utilized at (Park Name) including traditional classroom, field practicum, and distance learning. This training is offered through internal park programs, regional and Service programs, and commercial trainers. Every effort is made to invite, or partner with, third parties within the park, such as contractors and concessioners where appropriate, to leverage training resources and to encourage collaboration and foster understanding by all parties with the park.

Training is provided on-site and at off-site locations. The summary Environmental Training Matrix details the type and frequency of training required by our staff in their various positions. Who has been trained and who is responsible for administering the training is also listed. All training conducted at our park complies with, and is coordinated with, training standards developed by the region and Service.

In order to ensure that all the appropriate training has been received by the individual in a particular position, detailed records of who has received environmental training are maintained. Individual training records are kept as part of the employee's personnel file. They are periodically (i.e., annually) reviewed to ensure that all training is current and that all requirements, both regulatory based and those based on best management practices, are met.

BEST EMS Manual

- The manual details the overall environmental training requirements at BEST and gives an example of an individual's training record. The training record (pulled from personnel) allowed the EMT to identify someone who could play a key role in the achievement of an EMS target (conducting the energy audit).

H. MONITORING, MEASUREMENT, CORRECTIVE ACTION, AND MANAGEMENT REVIEW

This Element is used to detail your park's current (and proposed) methods of monitoring and measuring environmental performance. Knowing where you are and being able to demonstrate your successes (such as progress towards your goals, objectives and targets) are central to your EMS. Integral to this success is the ability to correct deficiencies as they are found and to establish mechanisms for preventing their recurrence.

Monitoring, Measurement, Corrective Action, and Management Review

What: A check on how your park's EMS is performing and a means to re-align and refocus as required. Can also include a periodic (e.g., yearly) review of concessioner Environmental Management Plans and performance.
Why: To continually improve your management systems and optimize your park's environment performance.
Who: EMT typically coordinates this effort with input form other appropriate parties. Superintendent conducts management review.
When: Throughout the EMS process (e.g., charting progress towards specific targets). The full EMS is reviewed at least annually by park management.
Where: Documented procedures and results should be maintained by the EMT.

As you develop your methods for monitoring and improving your park's EMS, it is helpful to keep in mind the principles identified in Element H of the park-level Model EMS:

H. Monitoring, Measurement, Corrective Action, and Management Review

- Procedures will be implemented to determine whether or not the EMS is achieving its stated goals, objectives, and targets. As reflected in the parks' Environmental Commitment Statement and NPS policy, compliance with applicable laws is required. A facility should consider the results of recent environmental audits as one set of monitoring and measurement data.
- Procedures will be developed and implemented to provide for corrective action to remedy those Elements of the EMS that fail to achieve established goals, objectives, and targets.
- Management review requires the documented periodic review of the performance of an EMS to determine whether it is achieving the intent of the Environmental Commitment Statement. Developed procedures will provide for the execution of corrective actions when it is determined that the intent of the Environmental Commitment Statement is not being achieved.

EMS Element H and its requirements can be conveniently divided into three sections:

- Monitoring and Measurement (includes the concepts of review, checking and assessment);
- Correction and Prevention; and,
- Management Review.

Monitoring and Measurement

The key to the prevention of serious impacts and the correction of situations and procedures that could lead to adverse impacts is monitoring and measuring those activities and services at your park that are associated with environmental interactions. Numerous activities occur at your park, of course, and it makes sense that different levels, intensities, and frequency of monitoring are designed tailored to the need at hand. Some monitoring efforts relate to regulatory permit requirements, some assess your own established targets, and some are checks on the park's EMS system itself.

A few examples of common environmental monitoring and measurement efforts already occurring in a park facility could include:

- Periodic sampling and laboratory analysis of drinking water wells (permit);
- Meter reading for electricity usage (EMS target);
- Daily wastewater discharge from a treatment system (permit);
- Monthly gallons of gasoline used by the park maintenance vehicles (EMS target);
- Percentage of park employees receiving EMS awareness training to date (training of all employees required by park EMS procedures);
- Quarterly compliance check of hazardous waste storage records (EMS target);
- Internal assessment of park's EMS Roles, Responsibilities, and Accountability Element (EMS system); and,
- Operational evaluations of concession contracts.

To accomplish these monitoring and measurement efforts a park's EMT may find it helpful to establish three types of inspections and assessments. The following are proposed:

Individual Environmental Program Inspections: Individual environmental program monitoring and measurement efforts are often required by regulatory requirement, plan, or standard operating procedure. For example, the park SPCC Plan requires periodic inspection of fuel storage tanks. Responsibility for this monitoring and measurement task (an inspection) is designated to an applicable park or an operational unit (e.g., maintenance). Completion of these inspection activities is documented and deficiencies that are noted are addressed through a corrective action program.

Internal Compliance Audits: The Superintendent should authorize an annual internal environmental compliance audit (i.e., self audit) to evaluate programs and procedures with respect to applicable laws. Environmental audit protocol or other criteria such as EnviroCheck Sheets or EnviroFact Sheets are used to conduct these assessments and the assessments are documented. Any deficiencies (non-compliance) found are noted and addressed by the appropriate personnel though the corrective action process.

Your park may also undergo periodic (typically once every three years) environmental audits conducted by the regional Environmental Audit Program Coordinator or a third-party auditor(s) using a Service-wide protocol. Park concessioners will also be subject to environmental audits using concession environmental audit criteria. Park management should encourage and fully support these audits as a means to obtain an objective assessment of the park's regulatory status.

BEST EMS Manual

- The Manual contains the procedures to follow in order to monitor, measure, and review EMS activities.

EMS Assessment: At least annually the EMT, led by the team leader, should conduct a full EMS Assessment - a review of the park's documented EMS (i.e., EMS Manual) relative to actual park practices. The EMT should review each EMS Element for conformance to the park-level Model EMS and to determine if there are any changes in applicable laws, changes in operations, or changes that would otherwise result in the need to update the EMS. If needed, the park provides training to employees on the changes made to the EMS. The results of the EMS Assessment are reviewed by the park management.

Correction and Prevention

The above section addressed developing procedures for the monitoring and measurement of an EMS and the various environmental components, such as compliance. The next step is developing procedures for correcting any deficiencies (non-compliance or non-conformance) that you may find. These are all opportunities for improvement.

As part of your park's EMS, you should have in place standardized procedures to follow if you identify opportunities for improvement in your system performance. For example, if you determine that you did not meet your stated targets this may indicate a need to reassess your system. The continual improvement foundation of EMS allows for such self-assessment and self-correction – the key to a well functioning system that will lead to improved environmental performance and park efficiencies.

Tips/Suggestions: Do not be afraid of what you find. All assessment data provides insight into your system and opportunities for improvement. An EMS is a not a destination, it is a continual process; so use anything you learn along the way to improve the process.

The pathway to instituting suitable corrective actions for issues found in your monitoring and measurement efforts is quite a straight and direct road. For each deficiency consider:

- Identify the deficiency or issue;
- Analyze the root cause, what lead to this deficiency or non-conformance in the first place;
- Decide on the appropriate correction action(s);
- Decide on an appropriate timeline and assign tasks;
- Review the results of these tasks upon completion and document the results; and,
- Revisit the issue during the next scheduled inspection or audit (of that element, activity, unit) to determine if your actions in fact resolved the deficiency and will likely prevent a recurrence.

Tips/Suggestions: Seek to design and implement preventative measures to avoid deficiencies or non-conformances from recurring. Consider what you will do in order to meet your objectives and targets the next time around and document your actions. The continual improvement foundation of an EMS is built on these very self-assessment and self-correction efforts.

You should always document your corrective actions. There is any number of options to follow. A common procedure is to use a Corrective Action Form as BEST did in their EMS Manual. Once completed, this form should be distributed to all affected staff.

BEST EMS Manual

- A sample corrective action form is included in the chapter H of the Manual.

Management Review

As we have seen, park management plays an integral role in the establishment and the continual improvement of a park's EMS and its environmental performance objectives. Periodic reviews at the management level are necessary to evaluate the suitability and effectiveness of the EMS and to redirect resources as needed.

These reviews do not need to be long, but can be concise yet comprehensive. Normally, such reviews include:

- Results from internal or external regulatory compliance audits;
- Results from EMS assessments (including review of Corrective Actions forms);
- A review of progress on stated goals, objectives and targets (summary results gathered from the EMT to include monthly updates from target leaders);
- A review of the suitability and applicability of the ECS;
- Input received from stakeholders concerning the park's environmental performance; and,
- A review of all eight EMS Elements.

Management level reviews should be conducted at defined intervals throughout the year, and more frequently is recommended. The full EMS and all of its elements should be reviewed annually at a minimum.

Tips/Suggestions: Management reviews should be documented through meeting minutes or similar means and kept by the EMT with other EMS meeting records.

Your park should use this annual review exercise to establish new goals, objectives and targets for the coming year.

Example language for your EMS Manual

We are committed to constant evaluation of our environmental performance and the performance of those parties operating within the park as stated in our ECS. In order to measure how we are performing, we undergo various assessments. The specific methods used in these self assessments are included in our document control system. The types of assessment activity for the park are described below.

Environmental Performance Review: At the end of each year the EMT, led by the EMT team leader, will determine whether the park has achieved identified environmental objectives and targets. If objectives and targets have not been met, the EMT will determine why, and will implement new operating procedures that will encourage the Park to achieve our stated environmental objectives and targets. A summary report of our annual progress will be prepared and maintained on file in the Superintendent's office and with the EMT.

Monitoring and measurement allow the park to gauge how well it is doing in achieving the EMS environmental objectives and targets, and other requirements. If, upon conducting an assessment, it is determined that the park has failed to achieve its objectives and targets, standard procedures to assess why the shortcoming(s) occurred are followed. The specific protocols for completing the various measurement and monitoring programs and procedures for corrective and preventative actions are attached.

At six month intervals the EMT reports to the Superintendent on the status of our EMS. In particular the EMT team details the progress made towards achieving the park EMS objectives and targets, and the other requirements the park is obliged to meet under applicable laws. Each review is documented and included in the park's central documents, records, and reports management system, as detailed in the attachment.

BEST EMS Manual

- Those records generated as a result of management review, which are to be kept by the EMT, are listed in the EMS Manual chapter. Who receives the records is also stated.

EMS RESOURCES

The EMS assistance developed by the NPS will include several additional resources for the pilot parks:

Helpdesk Hotline

The NPS recognizes that you will have a myriad of questions and concerns as you work toward establishing and maintaining an EMS. Many questions cannot be adequately addressed by printed materials such as fact sheets, toolkits, model language, and case studies.

An EMS Helpdesk, specific to the NPS, will be established and staffed during the Pilot Park phase of EMS development. A knowledgeable EMS specialist will be available on a toll free Hotline to answer specific questions from the Pilot Parks and direct them to additional EMS resources as appropriate. The Help Desk Hot Line is available to answer questions from Pilot Park personnel. The Help Desk Hot Line can be reached by calling 1-866-EMS-HTLN (866 367-4856).

Web Resources

Some times it seems like there is no shortage of information on the Web, but most of it isn't applicable to your immediate needs. The Web has a great deal of information on EMS, but it is largely focused toward private industry and primarily ISO 14001 oriented.

The NPS Park Facility Management Division Web site will have links to sites you should find useful and applicable to the issues you are addressing. Included on the Web site will be the same information contained on the CD as well as an EMS tracking system and information exchange where lessons learned from Pioneer Parks can be identified.

CD

A CD resource is under development that will include additional and tools and materials that parks can utilize:

- Templates of the tables and forms found in the EMS Toolkit;
- Advanced templates for those parks seeking to have an "enhanced" EMS;
- Sample checklists and SOPs;
- Examples of EMS assessment protocols, audit checklists, interview questions and a management review agenda;
- Frequently asked questions;
- Links to additional Web site resources; and,
- List of concessioners associated with EMS Pilot Parks; and,
- EMS training modules for use by Pilot Parks at their facilities (PowerPoint presentations for basic EMS Awareness and Train the EMT).

Concession Environmental Management Program (CoEMP)

- **GreenLine Number**: 303/987-6919. Concessioners and concession park staff can call to request technical assistance on the documented Environmental Management Program, a type of EMS that is required of all concessioners signing new Concession Contracts. The GreenLine Number is also available to answer questions about other environmental issues and the CoEMP.

- **GreenLine Email:** NPS_GreenLine@nps.gov. Instead of calling the GreenLine Number, concessioners and concession park staff have an option to email the CoEMP to request technical assistance on the documented Environmental Management Program and other environmental issues, or to learn more about the CoEMP.
- **GreenLine Newsletter**. This newsletter, published bi-annually, provides a forum in which the CoEMP can share information with concessioners and concession park staff about environmental management systems, current environmental compliance requirements, and Best Management Practices. It also identifies resources available to improve concessioner environmental performance and highlights success stories.
- **CoEMP Website**. The website (www.nps.gov/concessions) is under development, and will include the latest EMS resources developed by the CoEMP, in addition to links to other EMS resources available on the Internet. EMS resources anticipated to be available on the website include guidance on how to develop EMPs for specific concession service types and environmental topic resource documents that focus on concession operations.

GLOSSARY

Activity - Virtually any process, function, event or operation occurring at a park either once, periodically, or continually.

Applicable Laws - The laws of Congress including rules, regulations, and requirements promulgated under those laws, as well as state and local laws, rules, regulations, and requirements that govern protection of the environment and which specifically apply to a given park.

Auditor - Person qualified to perform compliance audits. A Lead Auditor manages the audit process and the audit team.

Audit Cycle - The period of time in which all the activities associated with a given site are audited.

Audit Finding – A conclusion as a result of a compliance audit that identifies a deficiency or a condition that deviates from the expected or required condition.

Audit Team - Group of auditors, or a single auditor, designated to perform a given audit; the audit team may also include technical experts and auditors-in-training.

Best Management Practices (BMP) - Practices that apply the most current means and technologies available to not only comply with mandatory environmental regulations, but also maintain a superior level of environmental performance.

Boundary - The defining parameters for a park's EMS. An EMS can be defined through a physical area (often called "fence line") or it can be defined by an organizational grouping (e.g., departments, divisions, specific operations).

Certification - Verifying or attesting (through an independent organization) that a process or system conforms to certain established requirements, usually a standard such as ISO 14001. The term is generally synonymous with "registration."

Checklists - A series of questions, in either paper or automated format, for use in evaluating compliance, EMS effectiveness, or both. Checklists occur in several forms for use by varying levels of personnel.

Code of Environmental Management Principles (CEMP) - A set of environmental management principles developed by the US Environmental Protection Agency for use at Federal agencies.

Compliance - Meeting all legal environmental obligations and requirements as identified by applicable federal, state, and local laws, rules, and regulations. See also, "Conformance."

Compliance Audit - Identification, characterization, and documentation of compliance status deficiencies related to either practices or environmental programs.

Conformance - Meeting all EMS obligations as identified by Executive Orders, Department of the

Interior directives, and NPS guidance and standards, especially the Model EMS. See also, "Compliance."

Continual Improvement - The systematic process or framework for improving a process, function, operation, system, or entire organization. In quality system terms this is often associated with the "Plan-Do-Check-Act" model.

Corrective Action - Any action that eliminates a nonconformance, deficiency, or other undesirable situation in a management system; especially one that addresses the root cause to prevent recurrence.

Deficiency - An unauthorized deviation from acceptable procedures or practices.

Emergency Response Plan - A detailed plan that describes the logistics, required actions, and reporting requirements in the event of a fire, explosion, or spill that occurs on park property having the potential to affect park personnel, visitors, contractors, or property.

Environment - Surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans, and their interrelationships.

Environmental Commitment Statement (ECS) - A statement by a park's senior management of its commitment to the environment, including the commitment to compliance and pollution prevention. The ECS provides the framework for continual improvement through the setting of objectives and targets and the actions necessary to achieve the desired performance improvements.

Environmental Leadership - Integrating environmental accountability into day-to-day decision-making and long-term planning processes. Advocating BMP on a personal and organizational level and the principles of sustainability, and making decisions that demonstrate a commitment to those practices and principles.

Environmental Management Plan (EMP) - A detailed plan of action specifying the means and timeframes by which an EMS objective and associated target(s) will be addressed.

Environmental Management System (EMS) - A systematic approach to managing a park's environmental affairs based on continual improvement and strategic planning principles. An EMS provides for the organizational structure, planning activities, roles and responsibilities, work practices and procedures, necessary to support the ECS. A park-level EMS must conform to the Model EMS which in turn is consistent with the CEMP and with EMS standards such as ISO 14001.

Environmental Management System Manual – A manual documenting an organization's principles and actions relating to its Environmental Management System.

Environmental Management System Assessment - A systematic documented verification process of objectively obtaining and evaluating evidence to determine whether an organization's EMS is functioning as intended and conforms to the principles, criteria, and goals committed to by the organization.

Environmental Management Team (EMT) - The group of individuals at each park that coordi-

nates and tracks the implementation and continually oversees the EMS at that park. EMTs should have a designated leader reporting to park management.

Environmental Performance - Measurable and quantifiable results of a functioning environmental management system.

Environmental Policy – A statement by an organization of its environmental commitment and principles. Within the NPS the preferable term for this concept is "Environmental Commitment Statement."

Facility - Any building, installation, structure, land, and other property owned or operated by, or leased to the NPS. This term includes a group of facilities at a single location managed as an integrated operation, as well as government owned contractor operated facilities (e.g., concessioners). The term "park" and "facility" may be used interchangeably.

Goal - A general statement of a desired strategic outcome to be achieved through a park's EMS (e.g., reduce air pollution).

Impacts - The effects of a park's interaction (or proposed interaction) upon specific natural resources or any other dimension of the environment. Impacts may be direct, indirect, or cumulative, beneficial or adverse. In the context of a park-level EMS, most impacts of concern will be adverse impacts.

Interactions - A park's activities, programs, functions, or actions that can connect to, or interrelate with, natural resources or any other dimension of the environment. Interactions have the potential to result in impacts. The NPS term "interactions" is equivalent to the ISO 14001 term "aspects," although the former term is preferable.

International Organization for Standardization (ISO) - A worldwide voluntary federation of national standards bodies from over 140 countries. ISO is responsible for the development of the EMS standard ISO 14001.

ISO 14001 - An international voluntary standard for environmental management systems. This is one standard in the ISO 14000 series of International Standards on environmental management.

Life Cycle - Consecutive and inter-linked stages of a product or service system, from raw material acquisition or generation of natural resources until disposal.

Life Cycle Assessment (LCA) - A systematic set of procedures for compiling and examining the inputs and outputs of materials, energy, and the associated environmental impacts directly attributable to the functioning of a product or service system throughout its life cycle.

Management System - A structured non-technical system that provides policies, objectives, principles, authority, responsibilities, accountability, and an implementation plan to guide an organization in a desired direction.

Model EMS - The specific EMS standard developed by the NPS for use by park staff in developing each park-level EMS.

Non-conformance - The non-fulfillment of a specified Model EMS element or requirement.

Non-Governmental Organization (NGO) - Voluntary organizations that participate actively in the promotion of environmental policies and issues.

Objective - A formal environmental goal stating a desired outcome (e.g., reduce energy consumption). It is derived from a park's environmental commitment statement, from evaluations of its specific environmental interactions and impacts, or both.

Opportunity for Improvement – An observed condition that does not represent a serious deficiency or deviation from the expected or required condition, but does provide a specific opportunity to improve the operational or environmental performance status of the park.

Ozone-Depleting Substance - Any substance designated as a Class I or Class II substance by EPA in 40 Code of Federal Regulations (CFR) Part 82.

Park Management - The senior management in the park organization. It normally consists of the Superintendent and key members of his/her staff.

Pollution Prevention - Means "source reduction," as defined in the Pollution Prevention Act (PPA), and other practices that reduce or eliminate the creation of pollutants through: (a) increased efficiency in the use of raw materials, energy, water, or other resources; or (b) protection of natural resources by conservation.

Procedure - A documented set of instructions with clearly assigned roles and responsibilities directing proper operation of a practice or conduct of an EMS element.

Quality - The features and characteristics of a product, service, or activity that relate to its ability to conform to or meet stated or implied requirements.

Root Cause - The fundamental deficiency that is the cause of a non-conformance or system breakdown and which must be corrected to prevent a recurrence.

Self-assessment - Assessments of any efforts, activities, or systems when the assessors are involved in or responsible for those items or practices under evaluation.

Stakeholders - Any individuals or groups that have an interest in a park's operation and its environmental performance. Stakeholders may include employees, regulators, visitors, suppliers, concessioners, conservation and advocacy groups, community residents, and the media. In the context of an EMS, "Interested Party" is an equivalent term to "Stakeholder."

Standard - A protocol established by a recognized authority as a rule or requirement.

Standard Operating Procedure (SOP) - A written document that details the approved method for an operation, analysis or action with prescribed techniques and steps, especially for performing routine or repetitive tasks.

Sustainable Practices - Actions that best achieve ecological and biological integrity, protect the quality of air, water, soil, and other aspects of the natural and cultural environment at present and into the future.

Target - A specific performance requirement, quantified where practicable, to achieve a stated objective (e.g., reduce electrical energy consumption by 25% by the end of FY 2004).

Toolkit - An established set of procedures, examples, templates, references, and resources that park staff may utilize to assist in the development of a park-level EMS.

Waste Prevention – Any change in the design, manufacturing, purchase, or use of materials or products (including packaging) to reduce their amount or toxicity before they are discarded. Waste prevention also refers to the reuse of products or materials.

Waste Reduction - Preventing or decreasing the amount of waste being generated through waste prevention, recycling, or purchasing recycled and environmentally preferable products.

Appendix A - Templates

Appendix B - EMS Manual

Appendix C - Best Audit Report